Physica 26 (1987) 420–422
North-Holland, Amsterdam

# INDEX OF AUTHORS AND PAPERS TO VOLUME 26D

Alstrøm, P., Levinsen, M.T. and Rasmussen, R., Scaling exponents, relations, and order dependence for circle maps 26D (1987) 336
Antonsen Jr., T.M., see Romeiras, F.J. 26D (1987) 277

Balthazar, J.M., see Koiller, J. 26D (1987) 85
Blackburn, J.A., Yang, Z.-j., Vik, S., Smith, H.J.T. and Nerenberg, M.A.H., Experimental study of chaos in a driven pendulum 26D (1987) 385
Bondeson, A., see Romeiras, F.J. 26D (1987) 277

Camacho, C. and Lund, F., Inelastic scattering of Toda solitons by an interface 26D (1987) 379
Chen, H.H. and Lin, J.E., On the infinite hierarchies of symmetries and constants of motion for the Kadomtsev–Petviashvili equation 26D (1987) 171
Chen, H.H., Lee, Y.C. and Lin, J.E., On the direct construction of the inverse scattering operators of integrable nonlinear Hamiltonian systems 26D (1987) 165
Chen, H.H., see Ting, A.C. 26D (1987) 37
Coutsias, E.A. and Kazarinoff, N.D., Disorder, renormalizability, theta functions and Cornu spirals 26D (1987) 295

De Filippo, S., Fusco Girard, M. and Salerno, M., Lyapunov exponents for the $n = 3$ discrete self-trapping equation 26D (1987) 411

Flytzanis, N., Pnevmatikos, S. and Remoissenet, M., Soliton resonances in atomic nonlinear systems 26D (1987) 311
Fusco Girard, M., see De Filippo, S. 26D (1987) 411

Gaffet, B., A class of 1-D gas flows soluble by the inverse scattering transform 26D (1987) 123
Grebogi, C., see Romeiras, F.J. 26D (1987) 277
Gutkin, E., Asymptotics of trajectories for Newtonian dynamics with directed force 26D (1987) 156

Hayot, F., Viscosity in lattice gas automata 26D (1987) 210

Jiménez Lara, L., see Piña, E. 26D (1987) 369

Kazarinoff, N.D., see Coutsias, E.A. 26D (1987) 295
Koiller, J., Balthazar, J.M. and Yokoyama, T., Relaxation-chaos phenomena in celestical mechanics. I. On Wisdom's model for the 3/1 Kirkwood gap 26D (1987) 85

Lee, Y.C., see Chen, H.H. 26D (1987) 165
Lee, Y.C., see Ting, A.C. 26D (1987) 37
Levinsen, M.T., see Alstrøm, P. 26D (1987) 336
Lin, J.E., see Chen, H.H. 26D (1987) 171
Lin, J.E., see Chen, H.H. 26D (1987) 165
Lund, F., see Camacho, C. 26D (1987) 379

Physica 26 (1987) 420–422
North-Holland, Amsterdam

# INDEX OF AUTHORS AND PAPERS TO VOLUME 26D

Alstrøm, P., Levinsen, M.T. and Rasmussen, R., Scaling exponents, relations, and order dependence for circle maps 26D (1987) 336
Antonsen Jr., T.M., see Romeiras, F.J. 26D (1987) 277

Balthazar, J.M., see Koiller, J. 26D (1987) 85
Blackburn, J.A., Yang, Z.-j., Vik, S., Smith, H.J.T. and Nerenberg, M.A.H., Experimental study of chaos in a driven pendulum 26D (1987) 385
Bondeson, A., see Romeiras, F.J. 26D (1987) 277

Camacho, C. and Lund, F., Inelastic scattering of Toda solitons by an interface 26D (1987) 379
Chen, H.H. and Lin, J.E., On the infinite hierarchies of symmetries and constants of motion for the Kadomtsev–Petviashvili equation 26D (1987) 171
Chen, H.H., Lee, Y.C. and Lin, J.E., On the direct construction of the inverse scattering operators of integrable nonlinear Hamiltonian systems 26D (1987) 165
Chen, H.H., see Ting, A.C. 26D (1987) 37
Coutsias, E.A. and Kazarinoff, N.D., Disorder, renormalizability, theta functions and Cornu spirals 26D (1987) 295

De Filippo, S., Fusco Girard, M. and Salerno, M., Lyapunov exponents for the $n = 3$ discrete self-trapping equation 26D (1987) 411

Flytzanis, N., Pnevmatikos, S. and Remoissenet, M., Soliton resonances in atomic nonlinear systems 26D (1987) 311
Fusco Girard, M., see De Filippo, S. 26D (1987) 411

Gaffet, B., A class of 1-D gas flows soluble by the inverse scattering transform 26D (1987) 123
Grebogi, C., see Romeiras, F.J. 26D (1987) 277
Gutkin, E., Asymptotics of trajectories for Newtonian dynamics with directed force 26D (1987) 156

Hayot, F., Viscosity in lattice gas automata 26D (1987) 210

Jiménez Lara, L., see Piña, E. 26D (1987) 369

Kazarinoff, N.D., see Coutsias, E.A. 26D (1987) 295
Koiller, J., Balthazar, J.M. and Yokoyama, T., Relaxation-chaos phenomena in celestical mechanics. I. On Wisdom's model for the 3/1 Kirkwood gap 26D (1987) 85

Lee, Y.C., see Chen, H.H. 26D (1987) 165
Lee, Y.C., see Ting, A.C. 26D (1987) 37
Levinsen, M.T., see Alstrøm, P. 26D (1987) 336
Lin, J.E., see Chen, H.H. 26D (1987) 171
Lin, J.E., see Chen, H.H. 26D (1987) 165
Lund, F., see Camacho, C. 26D (1987) 379

MacKay, R.S. and Percival, I.C., Universal small-scale structure near the boundary of Siegel disks of arbitrary rotation number 26D (1987) 193
Matsumoto, K. and Tsuda, I., Extended information in one-dimensional maps 26D (1987) 347

Nerenberg, M.A.H., see Blackburn, J.A. 26D (1987) 385
Nicolis, G., see Wang, X.-J. 26D (1987) 140
Novick-Cohen, A., Interfacial instabilities in directional solidification of dilute binary alloys: the Kuramoto–Sivashinsky equation 26D (1987) 403

Olvera, A. and Simó, C., An obstruction method for the destruction of invariant curves 26D (1987) 181
Ortoleva, P., Chemical wave–electrical field interaction phenomena 26D (1987) 67
Ott, E., see Romeiras, F.J. 26D (1987) 277

Pagano, S., Salerno, M. and Samuelsen, M.R., Parametric adiabatic perturbations on the sine–Gordon breather solution 26D (1987) 396
Percival, I.C., see MacKay, R.S. 26D (1987) 193
Piña, E. and Jiménez Lara, L., On the symmetry lines of the standard mapping 26D (1987) 369
Pnevmatikos, S., see Flytzanis, N. 26D (1987) 311

Rasmussen, R., see Alstrøm, P. 26D (1987) 336
Remoissenet, M., see Flytzanis, N. 26D (1987) 311
Romeiras, F.J., Bondeson, A., Ott, E., Antonsen Jr., T.M. and Grebogi, C., Quasi-periodically forced dynamical systems with strange nonchaotic attractors 26D (1987) 277
Roth, S., see Sporns, O. 26D (1987) 215
Ruth, R.D., see Warnock, R.L. 26D (1987) 1

Salerno, M., see De Filippo, S. 26D (1987) 411
Salerno, M., see Pagano, S. 26D (1987) 396
Samuelsen, M.R., see Pagano, S. 26D (1987) 396
Sattinger, D.H. and Zurkowski, V.D., Gauge theory of Bäcklund transformations, II 26D (1987) 225
Schneider, H., Integrable relativistic $N$-particle systems in an external potential 26D (1987) 203
Seelig, F.F., see Sporns, O. 26D (1987) 215
Simó, C., see Olvera, A. 26D (1987) 181
Smith, H.J.T., see Blackburn, J.A. 26D (1987) 385
Sporns, O., Roth, S. and Seelig, F.F., Chaotic dynamics of two coupled biochemical oscillators 26D (1987) 215

Takimoto, N. and Yamashida, H., The variational approach to the theory of subharmonic bifurcations 26D (1987) 251
Ting, A.C., Chen, H.H. and Lee, Y.C., Exact solutions of a nonlinear boundary value problem: the vortices of the two-dimensional sinh-Poisson equation 26D (1987) 37
Tsuda, I., see Matsumoto, K. 26D (1987) 347
Tufillaro, N.B., see Wiesenfeld, K. 26D (1987) 321

Vik, S., see Blackburn, J.A. 26D (1987) 385

Wang, X.-J. and Nicolis, G., Bifurcation phenomena in coupled chemical oscillators: normal form analysis and numerical simulations 26D (1987) 140

Warnock, R.L. and Ruth, R.D., Invariant tori through direct solution of the Hamilton–Jacobi equation 26D (1987) 1
Wiesenfeld, K. and Tufillaro, N.B., Suppression of period doubling in the dynamics of a bouncing ball 26D (1987) 321
Wilbrink, J., Erratic behavior of invariant circles in standard-like mappings 26D (1987) 358

Yamashida, H., see Takimoto, N. 26D (1987) 251
Yang, Z.-j., see Blackburn, J.A. 26D (1987) 385
Yokoyama, T., see Koiller, J. 26D (1987) 85

Zurkowski, V.D., see Sattinger, D.H. 26D (1987) 225

PHYSICA D

VOLUME 26D, Nos. 1–3 MAY / JUNE 1987

## CONTENTS

In Memoriam v

Obituary – Geoffrey S.S. Ludford vii

WARNOCK, R.L. and RUTH, R.D., Invariant tori through direct solution of the Hamilton–Jacobi equation 1

TING, A.C., CHEN, H.H. and LEE, Y.C., Exact solutions of a nonlinear boundary value problem: the vortices of the two-dimensional sinh-Poisson equation 37

ORTOLEVA, P., Chemical wave–electrical field interaction phenomena 67

KOILLER, J., BALTHAZAR, J.M. and YOKOYAMA, T., Relaxation-chaos phenomena in celestical mechanics. I. On Wisdom's model for the 3/1 Kirkwood gap 85

GAFFET, B., A class of 1-D gas flows soluble by the inverse scattering transform 123

WANG, X.-J. and NICOLIS, G., Bifurcation phenomena in coupled chemical oscillators: normal form analysis and numerical simulations 140

GUTKIN, E., Asymptotics of trajectories for Newtonian dynamics with directed force 156

CHEN, H.H., LEE, Y.C. and LIN, J.E., On the direct construction of the inverse scattering operators of integrable nonlinear Hamiltonian systems 165

CHEN, H.H. and LIN, J.E., On the infinite hierarchies of symmetries and constants of motion for the Kadomtsev–Petviashvili equation 171

OLVERA, A. and SIMÓ, C., An obstruction method for the destruction of invariant curves 181

MACKAY, R.S. and PERCIVAL, I.C., Universal small-scale structure near the boundary of Siegel disks of arbitrary rotation number 193

SCHNEIDER, H., Integrable relativistic *N*-particle systems in an external potential 203

HAYOT, F., Viscosity in lattice gas automata 210

SPORNS, O., ROTH, S. and SEELIG, F.F., Chaotic dynamics of two coupled biochemical oscillators 215

SATTINGER, D.H. and ZURKOWSKI, V.D., Gauge theory of Bäcklund transformations, II 225

TAKIMOTO, N. and YAMASHIDA, H., The variational approach to the theory of subharmonic bifurcations 251

ROMEIRAS, F.J., BONDESON, A., OTT, E., ANTONSEN Jr., T.M. and GREBOGI, C., Quasiperiodically forced dynamical systems with strange nonchaotic attractors 277

COUTSIAS, E.A. and KAZARINOFF, N.D., Disorder, renormalizability, theta functions and Cornu spirals 295

FLYTZANIS, N., PNEVMATIKOS, S. and REMOISSENET, M., Soliton resonances in atomic nonlinear systems 311

WIESENFELD, K. and TUFILLARO, N.B., Suppression of period doubling in the dynamics of a bouncing ball 321

ALSTRØM, P., LEVINSEN, M.T. and RASMUSSEN, R., Scaling exponents, relations, and order dependence for circle maps 336

MATSUMOTO, K. and TSUDA, I., Extended information in one-dimensional maps 347

WILBRINK, J., Erratic behavior of invariant circles in standard-like mappings 358

PIÑA, E. and JIMÉNEZ LARA, L., On the symmetry lines of the standard mapping 369

CAMACHO, C. and LUND, F., Inelastic scattering of Toda solitons by an interface 379

*Continued on page 3 of cover*

*Continued from page 4 of cover*

BLACKBURN, J.A., YANG, Z.-J., VIK, S., SMITH, H.J.T. and NERENBERG, M.A.H., Experimental study of chaos in a driven pendulum 385

PAGANO, S., SALERNO, M. and SAMUELSEN, M.R., Parametric adiabatic perturbations on the sine–Gordon breather solution 396

NOVICK-COHEN, A., Interfacial instabilities in directional solidification of dilute binary alloys: the Kuramoto–Sivashinsky equation 403

DE FILIPPO, S., FUSCO GIRARD, M. and SALERNO, M., Lyapunov exponents for the $n = 3$ discrete self-trapping equation 411

DYNAMICS DAYS (*Program synopsis*) 415

CONFERENCE CALENDAR 417

FORTHCOMING ARTICLES 418

INDEX OF AUTHORS AND PAPERS TO VOLUME 26D 420